C. Howard

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

APR 10 2008

Ms. Mary Lou Capichioni, P.G.
Director
Remediation Services
Corporate Environmental Services
The Sherwin-Williams Company
101 Prospect Avenue, N.W.
Cleveland, OH 44115-1075

Re: Sherwin-Williams Gibbsboro Sites
Administrative Order Index No. II CERCLA-02-99-2035
"Comprehensive Remedial Investigation Report, Paint Works Site, Gibbsboro, New Jersey" (May 2007) and "Supplemental Remedial Investigation Work Plan for the Paint Works Site, Gibbsboro, New Jersey" (May 2007)

Dear Ms. Capichioni:

The U.S. Environmental Protection Agency (EPA) has completed its review of the May 2007 "Comprehensive Remedial Investigation Report, Paint Works Site, Gibbsboro, New Jersey" and the May 2007 "Supplemental Remedial Investigation Work Plan for the Paint Works Site, Gibbsboro, New Jersey", both submitted by the Sherwin-Williams Company (SWC) and offers the following comments (Attachments I - IV). In addition, the New Jersey Department of Environmental Protection (NJDEP) comments on these documents are attached (Attachment V) as well.

EPA has reviewed the May 2007 "Comprehensive Remedial Investigation Report, The Paint Works Site, Gibbsboro, New Jersey" (2007 RIR) and the May 2007 "Supplemental Remedial Investigation Work Plan for the Paint Works Site, Gibbsboro, New Jersey" (2007 Draft RI Work Plan). As noted in the 2007 Draft RI Work Plan, EPA had requested (in the March 20, 2007 letter to The Sherwin-Williams Company) that a supplemental RI Work Plan be submitted; this request was based on a need to determine the nature and extent of contamination present at the Paint Works Site. Although not requested by EPA, the 2007 RIR presents a summary of the historical field activities and includes a compilation of analytical results from various sampling events. However, please note, EPA does not consider the 2007 RIR to meet the requirements of EPA's RI procedures; and as a result, does not consider the 2007 RIR to be a Comprehensive RIR.

505178

As discussed in the comments and appendices attached, there are many data gaps which are not addressed by the 2007 Draft RI Work Plan. Specifically, a majority of the soil samples previously collected from soil test borings were from intervals which did not exhibit contamination (as noted from review of the information presented in Appendix C of the 2007 RIR), and discussed in detail later. In addition, a large portion of the soil data only included screening results; whether it be field instrumentation readings only, visual observation, or limited screening methodology (*Note - hard copies of some 2003 Soil Screening Program field observation reports were not provided in the 2007 RIR or the 2001 NJDEP RI Report, however, they were provided in the April 2007 Revised Vapor Intrusion Work Plan; as a result, these comments are attached - Attachment "II").

In the case of groundwater data; aqueous samples previously collected from shallow groundwater wells (SGW), Well Point (WP) locations, and samples with the prefix "HP" all appear to have only been analyzed by an on-site gas chromotagraphy instrument; often for a reduced-list of analytes. Overall, a majority of all the samples submitted for laboratory analysis underwent analyses for a reduced-list of parameters. As a result (as discussed in detail in the comments attached), EPA does not concur with SWC's statements or conclusions on a potential list of Contaminants of Potential Concern (COPC) or the extent of contamination; which incidentally often appears to be driven by the fact that samples have not been collected beyond the previous Paint Works property boundary. It is EPA's opinion that there has not been sufficient sampling and analysis to determine a list of COPCs.

As proposed, EPA does not concur with a majority of the proposed sampling; details of EPA's review and comments are provided in Attachments I - IV. EPA is willing to incorporate the historic data (where available); however, EPA requests that more detailed figures and tables be generated for review. Separate figures should be generated for each of the following: soil, groundwater, and free product sample results. Figures for soil sample results should provide the interval sampled along with the specific analysis performed on the sample(s). If a referenced table is necessary, similar to Table 3-1 – Summary of Sampling and Analysis Program, which was provided in the 2001 RI Report to NJDEP, then one should be generated, but with additional details of the exact compounds analyzed. The figure for the groundwater samples should provide all aqueous sample collection points; including, but not limited to: WP, SGW, HP, etc. Again, the interval of sample collection and the analysis performed (clarifying whether it was screening vs. confirmatory analysis) should be provided. Finally, any data regarding notable product should be presented on a figure, along with the corresponding depth of detection. This information will be reviewed and a sampling strategy will be presented to SWC.

EPA is requesting that the above mentioned figures and tables be generated for review within 21 days of receipt of this comment letter. EPA and NJDEP will review this material, and if necessary will request a meeting with SWC if it has been determined that additional clarification of the historic data is necessary. EPA is not requesting that the 2007 RIR be reproduced; however, where specific deficiencies are cited (such as information or data lacking or inconsistent) a response is requested.

The comments are presented in the following manner: Attachment I presents EPA's comments on the Draft RI Work Plan, Sampling and Analysis Plan, and Quality Assurance Project Plan, Attachment II presents a copy of EPA's February 14, 2008 Comment Letter to SWC on the May 2007 SWC Revised Vapor Intrusion Work Plan, Attachment III presents a summary of instances where (based on review of the 2007 RIR – Appendix C ((Soil Boring Logs)) it was observed that the contaminated intervals were not sampled, Attachment IV presents EPA's comments on the 2007 RIR, and Attachment V presents NJDEP's comments on the 2007 Draft RI Work Plan and 2007 RIR.

If you have any questions regarding this letter, please contact Ray Klimcsak, of my staff, at (212) 637- 3916.

Sincerely yours,

Carole Petersen, Chief
New Jersey Remediation Branch

Enclosures

cc: John Doyon, NJDEP w/encls. – 4 copies
Honorable Edward Campbell, Mayor of Gibbsboro w/encls.
Clay Stern, USFW w/encls.

Attachment I

Comments on the May 2007
Draft Supplemental Remedial Investigation Work Plan, Sampling and Analysis Plan, and Quality Assurance Project Plan

General Comments on Draft Supplemental Remedial Investigation Work Plan

1. Review of the soil boring logs presented in Appendix C of the 2007 RIR provides the reviewer with insightful information as to the observed soil conditions versus the specific soil interval from which the field member collected a sample. Frequently soil samples were not collected for field screening and/or laboratory analysis from the interval that (either or) exhibited signs of visual contamination, had high field instrument readings, or exhibited noticeable odors. Rather, soil samples were often collected from "clean" intervals or intervals which did not exhibit the highest degree of contamination. Attachment III is a summary of the soil boring locations, for which EPA observed this practice utilized.

   In addition, it should be pointed out that both the 2007 Draft RI Work Plan and the 2007 RIR contains language or references to the fact that COPCs have been defined, or extent of contamination has been delineated; however, it should be pointed out that laboratory analysis was often (almost always) not for full TAL/TCL analysis (nor was analysis always performed in a laboratory, some samples underwent field screening, or visual inspection) – therefore, a list of COPCs has not been determined and the soil sampling program presented later in the 2007 Draft Work Plan is not acceptable as proposed (discussed later in detail). In addition, it often appears that sampling and/or screening measures were not employed past PWCC site boundary lines to confirm that contamination did not extend beyond site boundaries.

   Finally, EPA considers Appendix R - "Summary and Frequency of Detections" of the 2007 RIR to be biased and "incomplete" based on the points made in this paragraph. An attempt was made to summarize trends in data; however, samples were not always collected from zone which exhibited contamination.

2. Terminology from previous reports and activities are used throughout the 2007 RIR and 2007 Draft Work Plan. For instance, references to former tank farm areas, seep areas, etc., are termed "Areas of Environmental Concern" (AEC). In addition, field activities performed by SWC over a period of approximately thirty years are often referred to as "Phases" (of work). Throughout the 2007 RIR and 2007 Draft RI Work Plan these references (AECs and Phases) are used interchangeably, often making it difficult for the reviewer; therefore, EPA is requesting that these terms no longer be used. All activities should be referenced to by date and information as to the degree and type of analysis

performed. EPA does concur with the use of the following terms: Former Tank Farm A or B, Former Lagoon Area, Seep Area, etc., for references to sample location. In addition, all figures should depict the footprints of the former Tank Farms (A and B) as well as the former lagoons and settling ponds. This will enable the reviewer to visually see where historic samples were collected.

3. Many of the figures presented in the 2007 Draft RI Work Plan and the 2007 RIR depict the locations of various samples collected for which the data is not presented, nor are they on the appropriate matrix and/or contaminant figure. Examples of this are the samples with the prefix "HP" and "SWG". If samples were collected for field screening analysis, they should be depicted with a different color than the associated matrix sample which underwent laboratory analysis. In addition, text within the 2007 Draft RI Work Plan and the 2007 RIR makes references to samples collected from well points (WPs) and staff gauges; however all referenced locations are not depicted on the figures.

   EPA requests that separate figures be created to present locations and data for groundwater and soil samples. In addition, different colors should be used to present confirmatory sample results versus field screening (or on-site gas-chromatography (GC) analysis). Finally, a table should be created similar to the one created by SWC for the February 2001 RIR for the NJDEP – Table 3-1. In addition to the information provided within this table, additional information should be provided as to the specific analysis performed. For instance, if samples were analyzed for a reduced list of TAL metals, the specific compounds analyzed should be cited – as review of the text indicates that the same list of compounds were not always analyzed for any given sampling event.

4. Figures often cite the approximate boundary lines of either contamination, or areas of former SWC paint works operations; however, these areas are not always consistent or correct. Examples of discrepancies include the following: 1) A January 2006 figure submitted by SWC depicts a larger PWCC site boundary to the north, whereas all figures in the 2007 documents (2007 Draft Work Plan and the 2007 RIR) depict a smaller area; 2) the PWCC site boundaries depicted in the 2007 documents is inaccurately depicted based on the figure presented in Figure 2-1 of the 2007 Draft Work Plan, as they do not fully capture the extent of contamination present in the former lagoon area – this would be consistent with the data from samples HP-B and HP-G; 3) Figure 2-4 of the 2007 Draft Work Plan does not accurately depict the approximate extent of free-phase and residual product, as no samples were collected from the homes along U.S. Avenue and the area depicted does not incorporate all of the 2003 results (for example, the area which includes Former Tank Farm A should be incorporated based on screening results.); 4) lines used to define the approximate area of the PWCC often infer that areas beyond it are "clean"; however, many areas adjacent to contaminated one's have not been sampled – lines used to demark the PWCC area should be stated as such, different shading should be used in areas where samples have not been collected; 5) when a monitoring well exhibited signs of product (as presented on page 6-14 of the 2007 RIR), the wells were often not

sampled; however, these wells were often depicted as "green" on figures (as presented on Figure 2-7 of the 2007 Draft Work Plan), a practice which is often confusing to the reviewer – all new figures created should depict the locations of monitoring wells (with a unique color shading) which exhibited product, even if they were not sampled; and, 6) finally, future figures which are generated to depict proposed sample locations should include the locations of the current and past subsurface anomalies (in different shades).

5. For all future groundwater monitoring sampling efforts, a low-concentration Volatile Organic Compound (VOC) analytical method should be utilized. A method that provides a detection limit of 1.0 ppb (part per billion) or less, such as Contract Laboratory Program (CLP) Statement of Work (SOW) Multi-Media, Multi-Concentration Organics Analysis SOM01.2. For groundwater samples which have had historically high concentrations of VOCs or tentatively identified compounds (TICs), or where product has been previously recorded, then a "medium" analytical method can be utilized.

Specific Comments on Draft Supplemental Remedial Investigation Work Plan

1. Section 1.1 Site Description, page 1-3 - It is stated that, "Several interim remedial actions have been conducted in the Seep Area, and operation and maintenance activities are ongoing." All newly performed activities, regardless of the apparent degree of work, and the results of any analysis performed on samples collected at the Paint Works area, should now be summarized in the SWC Remedial Monthly Progress Reports to EPA in accordance with the 1999 AOC. In addition, please note, in the SWC Remedial Progress Report #98 (dated February 13, 2008) to the EPA, it is noted that "product" was recovered and disposed of from the "Seep Area". Any associated data collected as part of this recovery and disposal process should be provided to EPA.

2. Page 1-3 and Figures: 1-1, 1-2, and 1-3 - The Paint Works Site is shown as a smaller area on the figures in the 2007 Draft RI Work Plan, than on the "Comprehensive Reference Map" created by Weston Solutions, Inc. dated 26 January 2006.

3. Section 2.1 Soil, page 2-1 - EPA does not concur with the term Contaminants of Potential Concern (COPCs) as it is used in the text to describe the contamination present in the various areas (i.e., Former Tank Farm A and B, Seep Area, and Former Lagoon Area). As stated in the cover letter, confirmatory samples were not always collected from the soil intervals which exhibited visual contamination, or elevated (or the highest) field instrument readings; nor were samples analyzed for a full-suite of analysis. Historic sampling results have revealed that there are concentrations of volatile organic compounds (VOCs), semi-volatile organic compounds (SVOCs), and metals in both soil and groundwater which exceed screening criteria, however, it is premature to use the term COPCs for the Paint Works Area and not assume that there may be other contaminants until a more extensive RI sampling effort is performed.

4. Section 2.1.1 Former Tank Farm A (**Northernmost**) Area, page 2-2

a. EPA does not concur with the statement that VOCs have been horizontally delineated to the north (by) samples TB-63 and TB-64. Review of soil boring logs TB-63 and TB-64 (Appendix C of the 2007 RIR) suggests that there were no samples collected from these specific soil test bore holes – as this information is not presented in the column for "Comment". However, review of the data presented in Appendix Q of the 2007 RIR reveals that samples were indeed collected: 5.5 - 6.0 ft. at TB-63 and 7.5 - 8.0 ft. at TB-64. Critical is the fact that, according to Appendix C of the 2007 RIR, "gray/blue orange paint-like material" is observed at the approximate 1.0 ft. interval at TB-63 (and possibly TB-64 considering similar materials), however no sample was collected for VOC analysis, nor for SVOCs or metals. Finally, the free-product field (soil) screening results, which are depicted in Figure 5-9 of the 2007 RIR reveals that there are numerous locations which exhibited "hits" (depicted in red) and were north of TB-63 and TB-64; however, confirmatory soil samples were not collected from this area during the 2003 sampling effort.

b. EPA does not concur with the statement that VOCs have been horizontally delineated to the east (by) sample FP-99. Review of the results from the free-product field screening (soil) operations reveals that there are numerous locations with "detections" to the east (the exent of which was not delineated by the presence of "clean" screening samples). Not only were confirmatory soil samples not collected to the east of FP-99, a review of the results presented in Appendix Q of the 2007 RIR reveals that the nearby sample location "FP-BKG" was not even analyzed. Finally, soil boring logs for SGW-200, 204, 206, 210, 212, and 282 were not included in Appendix C of the 2007 RIR. Availability of these soil boring logs is crucial for developing a Work Plan. Incidentally, the results for the Shallow Groundwater (SGW) "screening points" collected in 1993 (presented in Figure 5-5 of the February 2001 RI Report to NJDEP), which were analyzed for BTEX (benzene, toluene, ethylbenzene, and xylene), reveals that there is a high occurrence of these compounds present throughout the entire (former) Tank Farm A area - the extent of which has not been delineated.

c. EPA does not concur with the statement that VOCs have been horizontally delineated to the south (by) sample TB-58. Although TB-58 may represent the "final" sample along the "southern" boundary line of the "northernmost portion" of the former Tank Farm A area, review of the free-product screening results (Figure 5-9 of the 2007 RIR) reveals that there are numerous locations with exceedances in the vicinity of TB-58 – as indicated by the "red" colored points. Furthermore, one sample point along a 150 ft. area does not qualify as a point to which contamination may be absent. In addition, further review of the information presented within Appendix C of the 2007 RIR for soil boring location TB-28 (approximately 50 ft. from TB-58) reveals that there were elevated OVA readings (1,000 ppm) at a depth of 8 ft., which consequently, was the last interval screened. Confirmatory soil samples were not collected at the depth which had the highest OVA

reading (1,000 ppm), instead soil samples were collected from 1.5 - 2.0 ft. and 7.0 - 7.5 ft. (both of which had much lower OVA readings, or readings of zero). Incidentally, samples from TB-28 and TB-58 were analyzed for VOCs only, not metals, nor SVOCs. Finally, the information presented in Appendix Q reveals that sample TB-58 had a dilution factor of "100" and "25" - it is assumed that a duplicate was collected at this location, since the same sample collection depth is presented for each result.

d. Although the focus of this paragraph was on the presence or absence of VOCs, it should be noted that there were very few samples collected and analyzed for metals or SVOCs in the area discussed. According to Appendix Q, only one sample in this area was analyzed for SVOCs and a reduced list of TAL Metals - sample TB-62 - incidentally, Lead and Barium exceeded site criteria.

In addition, samples for PCB analysis were collected from samples TB-38, 62, 63, 64, and 65 – all of which were collected at depths ranging between: 5.5 – 12.0 ft. Please explain the rationale for this interval of sample collection. According to the soil boring logs (Appendix C of the 2007 RIR), there appears to be a record of various visible contamination (i.e., paint chips, staining, petroleum odors, and elevated PID readings), some of these intervals were sampled, some were not.

e. Overall conclusion for this area: The field screening activities performed during the 2003 soil screening and sampling activities confirmed that the contamination previously noted in the soil boring logs (work performed nearly 10 years earlier) was still present. However, the subset of soil samples which underwent confirmatory laboratory analysis in 2003 were again not analyzed for TAL Metals or SVOCs; but for VOCs only. Horizontal and vertical delineation is required in this area, which is mostly unpaved and undeveloped. Limited soil sampling within the unpaved area of former Tank Farm A was performed within the 0-0.5 ft. interval and is required. Delineation is required to the north, south (to be addressed in Former Tank Farm A ((Immediate Vicinity)) area comments), east and west.

5. Section 2.1.1 Former Tank Farm A (**Immediate Vicinity**) Area , page 2-3

a. EPA does not concur with the statement that, "VOCs in the (area of) former location of Tank Farm A (immediate vicinity area) were horizontally delineated to the north at (sample) TB-58." As discussed in Specific Comment #4 c above, test boring location TB-58 represents one sample point along an approximately 150 ft. line which is being used to delineate the extent of contamination. In addition, it appears that two samples were collected from this location (one possibly a duplicate), both samples had elevated dilution factors: 25 and 100, respectively. Finally, as previously discussed in Specific Comment #4 c above, free-product is present throughout this area according to Figure 5-9 of the 2007 RIR. Former Tank Farm A needs to be addressed as one general area of contamination where horizontal and vertical delineation has not been achieved and

COPCs have not been defined.

In addition, the 2007 RIR cited location TB-28 in the discussion of delineation, while the 2007 Draft RI Work Plan states it was sample location TB-58. Please clarify if this was a typographical error, or is the discussion on the extent of contamination based on different locations.

b. EPA does not concur with the statement that, "VOC contamination was horizontally delineated to the southeast at FP-104 and southwest at FP-103." This statement would imply to the reviewer that the samples collected at these locations were below screening criteria; consequently, a review of the data reveals that this is not the case and no other confirmatory samples were collected north of these specified locations. According to the data presented in Appendix Q, it appears that confirmatory soil samples were only collected from the 8-12 ft. interval at FP-103, the 12-16 ft. interval was not analyzed; whereas, only the 16-20 ft. interval was analyzed at FP-104; the 20–24 ft. interval was not analyzed. Incidentally, at soil boring location FP-104 the interval that exhibited the highest FID/PID field screening reading (6,400 ppm) at 13.0 - 13.5 ft. was not sampled and analyzed, nor was the interval that exhibited "black staining" at 9.0 - 9.5 ft. Finally, both samples were analyzed for VOCs only.

c. EPA does not concur with the statement that Napthalene was delineated in all directions except to the east. Although it was only detected in one sample, it was only sampled and analyzed for in 6 locations (TB-1, 2, 3, 4, 37 and 38). In addition, according to the soil boring logs, only at location TB-37 was the extent of elevated field screening readings delineated during field operations; at all other locations mentioned above field screening readings still registered between 100 - 1,000 ppm at the deepest screened interval.

d. It is stated that, "VOCs and SVOCs were generally found at depths ranging from the top of the capillary fringe and extending into the saturated zone...and that the majority of the borings were terminated at the top of the saturated zone, and therefore, vertical delineation for VOCs has not been achieved.", EPA agrees that vertical delineation is required; however within the former area of Tank Farm A (which will require "off-site" sampling to the north and east) additional horizontal and vertical soil sampling is required, above the capillary zone as well where (according to the soil boring logs in Appendix C of the 2007 RIR) discolored soils and elevated field screening instruments readings are present.

In addition, several test boring locations (TB-1, 2, 3, 4 and 9) were also sampled and analyzed for a reduced list of TAL Metals and although the results reflect that there were no constituents above the site soil screening criteria it should be noted that samples were not always collected from the interval with the highest notable signs of contamination.

e. Overall conclusion for this area - As discussed for the "northernmost" area of Former Tank Farm A, horizontal and vertical delineation of soil contamination is required as is establishing a list of COPCs. To date, the sampling activities performed have not characterized the extent of contamination in the various directions. As a result, it is anticipated that not only must additional sampling be performed in the general area of Former Tank Farm A, but samples must be collected on the opposite side of United States Avenue, from the front property of the homes along United States (between Berlin-Haddonfield Road and the last home on U.S. Avenue).

6. Section 2.1.2 Former Gasoline Station, page 2-3

a. It is stated that a majority of the historic sampling conducted at the former gasoline station did not find "constituents" in soil at concentrations greater than either the IGWSCC or RDCSCC.", please note, EPA considers the initial list of potential contaminants to include (at least): VOCs, SVOCs, and TAL Metals. A review of the data and soil boring logs reveals that out of all the soil samples collected, including those from test boring (TB) locations and the two "FP" confirmatory soil samples (collected in October 2003), only one sample was analyzed for SVOCs (TB-41 at the 8-10 ft. interval). In addition, a reduced list of TAL Metals was analyzed at only the "TB" locations. As noted from the soil boring logs (Appendix C of the 2007 RIR), it appears that continuous interval sampling was not performed in the former Gasoline Station; instead, samples were often collected from the zone of highest field screening instrument readings (*it should be noted that elevated readings were noted throughout the bore holes, often times "clean" limits were not determined). Finally, the soil boring logs for SGW-220, 222, 224, 226, and 298 were not provided in Appendix C of the 2007 RIR.

b. It is later stated that with the exception of sample FP-105, no sample was extended into the saturated zone. A review of the information provided in the 2007 RIR reveals that out of the four (4) intervals sampled at locations FP-105 and FP-106 (incidentally also collected within the saturated zone according to Soil Boring-Well Log: SS-FP-106) only two of the intervals were analyzed, one exhibited exceedances for xylenes; however, both exhibited a high concentration of VOC TICs. Please confirm that the lower intervals from these two samples were not analyzed.

c. All shallow groundwater (SGW) samples analyzed for BTEX within the former gasoline station exhibited exceedances for benzene, and less frequently for xylene and ethylbenzene; however, since the soil boring logs for these samples were not provided, EPA is unable to determine the depth of sample collection, and other important information such as field observations noted during sample collection. Incidentally, the data for these sample results was provided in Figure 3-1 of "February 2001 RI Report" submitted to the NJDEP. The extent of shallow groundwater contamination has not been delineated in the area of the former gasoline station.

d. Regarding the former underground storage tanks (USTs) it should be clarified within the 2007 RIR that these tanks have since been removed. In addition, EPA notes that contrary to information presented in previous SWC reports (i.e., page 3-21 of the February 2001 RI Report to the NJDEP, which stated that when inspected - the tanks exhibited corrosion, pitting, and numerous holes), the USTs removed did not exhibit any of these deteriorated conditions.

e. As with the former Tank Farm A Area, a review of the soil boring logs reveals that confirmatory soil samples were not always collected from the intervals with the highest field instrument screening results or with visual contamination. After a review of the soil boring logs for TB-40 and TB-41 it is noted that several soil samples: 040-B001, 041-B001, and 041-B002 were either not collected from the intervals specified on the soil boring logs (which were noted to have the highest Organic Vapor Analyzer (OVA) readings) or were not analyzed at all. For example, according to the soil boring log for TB-40, sample 040-B001 was collected from an interval of 2.0 to 2.5 ft, which had a OVA reading of 1,000 ppm. However, a review of the results table in Appendix Q reveals that the sample was collected from 3.0 - 3.4 ft. Whereas a review of the soil boring log for TB-41 reveals that sample 041-B001, which was sampled from 2.0 -2.5 ft and had an OVA "peak reading" of 1,000 ppm, was actually sampled and analyzed at the 3.0- 3.5 ft interval. In addition, it appears that a second sample (041-B002) was collected from the 8.0 - 8.5 ft. interval which had an OVA reading of 1,000 ppm - however, this sample appears to not have been analyzed.

f. Overall conclusion for this area: It is stated that, "it can be concluded that additional soil samples should be obtained from the saturated zone in the area of the former gasoline station"; however, according to the available soil boring logs (Appendix C of the 2007 RIR), it is apparent (due to elevated field instrument readings and visual observation) that additional sampling is necessary above the saturated zone as well. In addition, the field screening activities utilized in 2003 (to confirm the presence or absence of free-product), concluded that much of what was encountered in the early 1990's was still present in 2003. As noted in these comments, additional sampling is required in all areas to determine the extent of contamination and to establish a list of COPCs.

7. Section 2.1.3 Seep Area, page 2-4

a. EPA disagrees with the statement that "napthalene was horizontally delineated to the south by locations TB-7 and TB-31 and to the southeast by FP-157." Please note, sample FP-157 was not analyzed for SVOCs, nor was sample FP-158 (in fact, as with previously reviewed soil boring logs, it appears that the interval with the highest PID reading ((1,100 pmm)) which was detected at 14 - 14.5 ft. was not sampled and analyzed). In addition, the data for sample locations B-77 and B-78 are not provided in the 2007 Draft Work Plan; however, it appears (according to data available on TeamLink) that sample B-78 was analyzed for metals and VOCs, whereas sample B-77 was analyzed for metals only.

Finally, low quantities of napthalene were found in samples TB-7, TB-8, and TB-31; the extent of which was not delineated, as there were no soil samples collected below a depth of 5.5 feet. As previously mentioned, a review of the soil boring logs reflects that the extent of contamination was not delineated at TB-7, TB-8 (where PID readings exceeded 1,000 ppm at the deepest screened interval) and to a lesser extent TB-31 (where PID readings were 200 ppm at the deepest screened interval).

b. It is stated that VOCs in MW-13 were horizontally delineated to the north and northeast at locations TB-49, TB-50 and TB-51. Please note, the samples cited by SWC do not adequately delineate the extent of VOC contamination to the north and northeast and consequently EPA disagrees with this statement. Based on information available from the soil boring logs (Appendix C, 2007 RIR), it is again apparent that samples were either not collected from the intervals with the highest PID readings, the vertical extent of contamination was not delineated, and no samples were collected from a horizontal "step-out" when there was a positive result. In addition, the soil boring logs for all SGW sample results (i.e, SGW-246, 248, 252, 254, 256, 266, 290, and 294), which were collected throughout the general area (which includes the entire Seep Area, Former Building 67, and the police station) were not provided in the 2007 RIR. Finally, the soil screening samples collected to determine the extent of free-phase product reflects the need to perform delineation sampling and analysis in all directions, including east of U.S. Avenue.

c. It is stated that only three samples (i.e., TB-30, TB-31, and SGW-266) collected in the Seep Area were analyzed for metals. A review of the data reveals that only two locations were analyzed for full TAL-metals analysis (i.e, TB-30 and TB-31), whereas the sample at location SGW-266 was analyzed for a "reduced" list of analytes which included: barium, chromium and lead. In addition, it is stated that "no metals were detected in the samples from these locations", although true for the samples above, additional soil samples within the Seep Area were analyzed for both TAL-metals and a reduced list of inorganics. Sample TB-8 was sampled and analyzed for a reduced list of inorganics and exhibited lead at 2,070 ppm and barium at 2,940 ppm. In addition, sample HA-1 was analyzed for TAL-metals and exhibited lead at 685 ppm (a sample was only collected at the 0-0.5 ft. interval). Additionally, HA-2 and HA-3 were also sampled and analyzed for a reduced list of inorganics and incidentally exhibited barium at low levels.

e. Overall conclusion for this area: This section has alluded to the fact that a list of COPCs has not been determined and that additional sampling is required to establish the vertical and horizontal extent of contamination – EPA agrees.

8. Section 2.1.4 Former Tank Farm B Area, page 2-4

a. Figure 2-3 of the 2007 Draft RI Work Plan fails to reflect that there were exceedances for lead in the soil samples collected at the following locations: TB-32, TB-69, MW-17, and

MW-18 (as indicated in Appendix Q of the 2007 RIR).

b. It is stated within the text that a limited number of samples were analyzed for other potential contaminants, but it is not clarified what they are. As with other areas, there is a concern that samples were not always collected from intervals which exhibited signs of contamination. For instance, a review of the soil boring logs in Appendix C of the 2007 RIR reveals the following: 1) TB-66 – had black "petro" staining and white paint-like chips present, but no samples were collected; 2) TB-67, had red and white paint-like chips present (0.0 – 0.5 ft.) and petroleum-like odor and stains (3.0 ft), yet only the upper interval (0.0 – 0.5 ft.) was sampled and analyzed (for VOCs and lead only), revealing elevated concentrations of ethylbenezene and lead; 3) TB-68, it is stated that no sample was recovered from 2.0 – 5.0 ft, yet a sample is reflected as being collected at the 1.5 – 2.0 ft and 2.0 – 2.5 ft interval, both exhibited exceedances for lead, no other analysis was performed on the sample; 4) TB-69, nothing was noted on the soil boring log, but two intervals were sampled and analyzed for lead only, both had exceedances; 5) TB-69, exhibited black petroleum-like staining and odors and white/red paint flakes at 0 – 1.0 ft., yet samples were only collected for TAL analysis and lead analysis, incidentally there were exceedances for lead, arsenic and other inorganic compounds at the various intervals, but this was not reflected in Figure 2-3 of the 2007 Draft RI Work Plan; 6) TB-91, soil boring log was not provided; and 7) TB-92, elevated OVM readings at the 0.0 – 0.5 ft. interval, however samples were collected at deeper intervals and were analyzed for VOCs only.

c. The "May 2007 Revised Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan"(May 2007 VI Sampling Plan) submitted by the SWC included a table not previously submitted with any other report to the EPA New Jersey Remedial Branch (NJRB) or within the February 2001 RI Report to NJDEP. Table 2-3 of the May 2007 VI Sampling Plan provides field observations noted during the 2003 Soil Screening activities. As previously noted in EPA's February 14, 2008 Comment Letter to SWC on the SWC May 2007 "Revised Vapor Intrusion Work Plan" – EPA's "Revised Plan Comments" #1a, the screening process did not seem to follow a "step-wise" approach to properly screen samples, especially when the various methods produced conflicting results. For example, boring locations 137 and 138 both exhibited "light odor and light sheen", yet the "Kolor Kit" test results produced a "negative result". Field Observations recorded this as: "insufficient or misleading evidence"; yet the samples did not undergo analyses by the "PetroFLAG" analyzer. Ultimately, these samples were depicted as clean, being denoted as "green" on associated figures.

d. Overall Conclusion for this area: It is stated in this section that lead was the constituent most frequently found above the RDCSCC, however, it was also the constituent most frequently analyzed – EPA agrees. The sampling and analysis performed did not adequately delineate the horizontal and vertical extent of contamination, nor did it establish a list of COPCs for this area and additional sampling is necessary.

9. Section 2.1.5 Former Lagoon Area, page 2-5

a. Information within the 2007 RIR cites that during excavation and removal activities of the former lagoons, daily field reports were generated and issued to Mr. Richard Phillips, Corporate Director, SWC. Please provide copies of these reports to EPA.

b. Although this section primarily discusses soil contamination and not groundwater contamination (which EPA will address in later comments), EPA requests a copy of the following 1978 resistivity report by Geraghty and Miller, which concluded that a "plume of contamination had moved off-site away from the lagoon area." This "report" is referenced on page 3-34 in the February 2001 Remedial Investigation Report to the NJDEP.

c. It is stated that a total of six soil samples were collected from the former lagoon area, which included four (4) ponds, one (1) holding "basin", and one (1) sludge pond. Each soil sample was collected from the approximate center of the former lagoons/ponds at an approximate depth of 10.0 – 12.0 ft. Page 3-33 of the February 2001 RI Report for NJDEP states that the approximate depths for Ponds 1, 2, 3, and 4 were 5, 15, 8, and 12 feet, respectively. The depths of the sludge pit and holding pond were approximately 20 and 10 feet, respectively. The rationale for the "uniform" depth of soil sample collection is unclear and the rationale for this must be provided.

d. Nearly all of the previous work performed in the former lagoon area (which includes the 4 ponds, 1 holding basin, and 1 sludge pond) was performed on a "visual" basis. Groundwater sampling and screening will be discussed later in this comment letter; however, it should be noted that only 6 soil samples were collected for confirmatory analysis. As previously cited (above – as EPA Specific Comment 9c) it appears that a "uniform" sampling depth was selected regardless of the depth of sludge/product material noted during the investigation by McClymont Associates. In addition, although it may have been previously accepted practice to collect one sample in the centerline of the former lagoons/ponds, it is not acceptable to complete the requirements of a RI. It does not appear that the lagoons/ponds were lined to prevent vertical or horizontal migration of contaminants, nor does it appear that any samples were collected downgradient of any of the former lagoons/ponds.

e. Overall conclusion for this area: Additional sampling must be performed to fully delineate the horizontal and vertical extent of contamination at the former lagoon area. Additional efforts must be performed to establish a list of COPCs.

10. Section 2.2 Free and Residual LNAPL, page 2-5

a. The free-phase product screening study has provided an early indication of the

approximate location of petroleum impacted soils; however, it did not confirm the horizontal extent, as "clean" samples were not achieved in various areas. As cited in EPA's February 14, 2008 Comment Letter to SWC on the SWC May 2007 "Revised Vapor Intrusion Work Plan" – EPA's "Revised Plan Comments" #1a, there are concerns on the screening methodology utilized. In addition, where there were some discrepancies, confirmatory soil samples were not always collected.

b. It is stated that the approximate extent of free-phase and residual product is presented in Figure 2-4 (2007 Draft RI Work Plan); however, Figures 5-2B and 5-9 (both of the 2007 RIR) present a much different depiction of the approximate extent of free-residual NAPL. Please present the rationale for this. In addition, the proposed extent depicted in Figure 2-4 envelopes several homes (south of the former gas station) in an area from which no samples (either screening or confirmatory samples) were collected – please explain. Also, the former Tank Farm A area and the area to the east, where "clean" samples were not delineated were not included in this area. Please explain.

c. The building designation "1 Foster Avenue" as being in the former Tank Farm A area appears to be a typographical error. This tank farm was north of the 2 Foster Avenue building.

d. The 2007 RIR indicated that the product was a weathered mineral spirit, and did not discuss gasoline as prominently as the 2007 Draft RI Work Plan did when discussing the components. In addition, the 2007 Draft RI Work Plan discussed the results of a 2000 sampling event for free product. This information was not discussed in the 2007 RIR, and no data was presented (as was done for the 1993 and 1995 product analysis events). The results from these events did indicate benzene as a component of the material (which is inconsistent with the summary provided on page 2-6).

e. It is stated that ninteen soil samples, including one background sample, were collected and analyzed for VOCs and SVOCs. Please note, according to the data presented within Appendix Q of the 2007 RIR, the sample collected at FP-BKG (presumably the sample referred to as background) is listed as "NA" (not analyzed), please confirm whether or not this sample was analyzed, and if so, please present the data. In addition, samples were not analyzed for TAL-metals; however, a subset of the small number of samples that were (i.e., TB-62) did have exceedances for lead at shallow intervals.

f. References are made to "WP" (well-point) sample results. As a general comment on WP samples, both the 2007 RIR (i.e., page 5-15) and the 2007 Draft RI Work Plan fail to present pertinent information on these samples. Examples of information that is missing includes: referenced locations missing from figures; soil boring logs for these locations; depths of sample collection; analysis performed; recorded measurable product (i.e., as referenced on page 2-6); and analytical results.

In addition, there are references to samples which were collected from staff gauges (i.e., page 5-11 of the 2007 RIR). These sample results are not readily referenced in the reports for review. Sample numbers should be provided and locations should be depicted on the associated figures so the reviewer can review this information.

g. Although the results of the 1993 Shallow Groundwater screening program (SGW samples) are not discussed in this section, the results should be cited in this section as they provide additional insight as to the extent of contamination. Finally, Figure 5-4 of the 2007 RIR presents the locations of screening samples which were collected in September 1995, these results are not readily discussed in this section, nor is information provided about them in the section on the Seep Area (where the majority of these samples seem to have been collected.). Please explain.

In addition, benzene is not listed on page 2-6 as one of the target compounds most frequently detected in samples, please note benzene was readily detected above criteria during analysis of the SGW samples.

11. Section 2.3 Geophysical Investigation, page 2-7 - Page 2-7 identifies that geophysical investigation targets T-60 and T-61 are possibly former production wells; however, the table presented on page 2-8 presents identifies T-59 and T-60, and does not list T-61 at all. Please correct the discrepancy.

12. General Shallow and Deep Groundwater (Including Confining Bed) Comments

a. As a whole, the analytical program employed on the aqueous samples from the PWCC area are similar to the soil analytical program, in that samples were frequently not analyzed for full-TAL/TCL analysis and they were not always analyzed in a laboratory (i.e., field screening/on-site GC). This makes it difficult to agree with general statements throughout the various reports on the extent of shallow and deep groundwater contamination, including the compounds present and potential COPCs. Until the existing monitoring wells have been redeveloped and re-sampled, EPA does not concur with the statements within 2007 Draft RI Work Plan and/or the 2007 RIR, which pertain to the proposed extent of shallow and deep groundwater contamination.

b. Figures and data tables presented in both the 2007 Draft RI Work Plan and the 2007 RIR, lack complete information regarding WPs, staff gauges, and samples with the prefix "HP". This has been cited before and requires that it be addressed. In addition, the existing monitoring wells have not been sampled since 2003, some wells prior to that. It is EPA's recommendation that the monitoring wells be re-developed prior to re-sampling.

c. Text throughout the 2007 Draft RI Work Plan and the 2007 RIR references the fact that groundwater exhibited only natural attenuation parameters; however, aqueous samples

were frequently analyzed for only natural attenuation parameters. Page 6-20 of the 2007 RIR states that, "Metals were generally not the focus of the historic groundwater investigations. The majority of the groundwater samples for which analyses for one or more metals were conducted were limited to naturally occurring metals, such as calcium, iron, and manganese." Although this language was specifically in the section on "shallow groundwater results", it is later reiterated in the section on "deep groundwater results". Incidentally, on Page 2-5 of the February 2001 RI Report to the NJDEP, it is stated that, "alum was added to wastewater (produced from manufacturing process) prior to discharge to the lagoons." Please note, that alum is comprised mainly of the following compounds: aluminum, manganese, and sodium. Therefore, EPA does not completely agree with the statement that some of these compounds are due to natural conditions.

d. As stated earlier, when a monitoring well exhibited signs of product (as presented on page 6-14 of the 2007 RIR), the wells were often not sampled; however, these wells were often depicted as "green" on figures (as presented on Figure 2-7 of the 2007 Draft RI Work Plan), a practice which is often confusing to the reviewer – all new figures should depict the locations of monitoring wells which exhibited product, even if they were not sampled. In addition, there are instances throughout the 2007 Draft RI Work Plan and the 2007 RIR that cite that previously recorded product thickness (as is stated on page 6-39 of the 2007 RIR for MW-1, MW-24, etc.) were later observed at much lesser quantities (i.e., product thickness). Please state why these wells were not later sampled if there were "little" quantities present? In addition, please state what the "maximum" thickness quantities are, that would trigger the field sampling team to not collect a sample.

e. Appendix S of the 2007 RIR is entitled "Summary of Exceedances". The tables are designed to present the results for the various constituents detected during the numerous phases of sampling for all media. Page 6-15 of the 2007 RIR states that, "All groundwater data collected during the six phases of investigation are presented in this report", and actually references Appendix S. However, review of this appendix reveals that the 2003 groundwater sampling results, many of which contained exceedances, are ommited from Appendix S. This is an artifact from the fact that the 2007 RIR is a duplication of the February 2001 RIR submitted to NJDEP. This omission in the text implies that there were no exceedances noted during the comprehensive 2003 groundwater monitoring sampling event and should be corrected.

In addition, the "Action Levels" depicted in Table 5-1 of Appendix S of the 2007 RIR are not the same as those depicted on Figure 2-3 of the 2007 Draft RI Work Plan. Monitoring wells that were not sampled due to the presence of product should be classified with a footnote within Appendix S. Finally, review of Table 5-4 of Appendix S (2007 RIR) reveals that there is groundwater data available for points labeled with the prefix "HP". Review of this data shows the presence of BTEX concentrations.

f. Much of the contamination from the Paintworks operation exists now as TICs. Many of the locations where the documents present only minor exceedances in regulatory standards actually exhibit organic carbon levels between 1 and 2 percent (greater than 10,000 ppm). As indicated in the document, this may indicate movable free-phase product. This is a problem that will require more sampling, analysis, and discussion than what is currently included in this document. Data gaps will have to be addressed. Currently, there is little data to define the Total Organic Carbon contamination.

g. As earlier stated, EPA requests a copy of the following 1978 resistivity report by Geraghty and Miller, which concluded that a "plume of contamination had moved off-site away from the lagoon area." This "report" is referenced on page 3-34 in the February 2001 Remedial Investigation Report to the NJDEP.

h. The groundwater contouring still does not utilize surface water elevations and topography as a guide. At present, there are isolated and separated areas of groundwater contours located within the site boundary.

13. Section 2.4, Specific Comments on Shallow Groundwater Investigation

a. Section 2.4.1 Volatile Organic Compounds - EPA disagrees with the statement that, "The lateral extent of benzene was generally defined at MW-14 and MW-6, while the downgradient extent was defined at MW-6 and MW-21, where no benzene was found above the GWQS." For one, HP-A, HP-B, HP-C, and HP-G are all locations "downgradient" which exhibited relatively high benzene results, as well as other BTEX concentrations. In addition, MW-21 was stated as being used to define the downgradient extent of benzene (where no benzene was found); however, MW-33, which appears to be directly adjacent to this well, exhibited benzene at 520 ug/l; and MW-13R and MW-22 were not sampled due to the presence of measurable product.

The lateral extent of benzene contamination has not been delineated laterally (east) along U.S. Avenue, nor (west) in the vicinity of MW-15 and MW-20. In addition, as previously indicated, it has not been established downgradient. It appears as though benzene may have been delineated to the north (although MW-1 and MW-24 have exhibited signs of measurable product), by MW-25, 28 and MW-SCAR; however, SGW-282 exhibited signs of high benzene (but the depth of sample collection was not specified).

b. Section 2.4.2 Semi-volatile Organic Compounds – A majority of the screening samples (SGW) were not analyzed for SVOCs, in addition, it is uncertain to what extent samples from well-points (WPs) and staff gauges were. Therefore, it is difficult to draw conclusions on the extent of SVOC contamination in areas of the former tank farms, although, pentachlorophenol was detected above criteria in MW-18. It appears that the downgradient extent of pentachlorophenol (PCP) was not delineated, this is evident by

the presence of PCP in MW-4, MW-23, and (to a lesser extent) MW-38; in addition, PCP was also detected in samples collected from points HP-A and HP-B. It appears that the area south and southwest of the former lagoon area requires further delineation.

It is stated that, "it is not known at this time whether the results reported in 2003 were the result of particle entrainment in the sample, ..". This is further proof that monitoring wells should be re-developed prior to resampling.

c. Section 2.4.3 Metals – Please see Comment #12 c, regarding SWC's assessment that the metals detected are likely attributable to natural conditions. The compounds lead and arsenic are two compounds that were detected above criteria at numerous monitoring wells throughout the site. In addition, sampling and analysis of full-TAL metals was only performed on all the monitoring well samples in 2003; often a reduced list of compounds was analyzed in the past. Finally, it does not appear that the WPs, SGWs, and HP locations were sampled and analyzed for full-TAL metals.

d. MW-33 is depicted on Figure 2-7 as being in the shallow aquifer; however, there is no discussion of it in Section 2.4. In addition, conflicting information as to its well interval designation was noted during review of the 2007 RIR. There appropriate aquifer/depth assignment for MW-33 should be definitively determined.

14. Section 2.5, Specific Comments on Deep Groundwater Investigation –

a. An additional round of sampling, after the monitoring wells have been re-developed is necessary before EPA can make an assessment of SWC's evaluation of the extent of contamination in the "deep" groundwater.

b. Page 2-10, 3rd Full Paragraph – The "northernmost deep monitoring well" appears to actually be MW-34.

15. Section 3.0, Preliminary Assessment Update – EPA concurs with the SWC's proposal to further investigate the three areas identified: 1) four separate electrical transformer areas adjacent to the former buildings 62, 33, 37, and 39; 2) an abandoned cesspool located north of Building 38; and 3) a steel tank for storage of weed killer located west of Building 31.

16. General Comments on Section 4.0, Scope of Work

a. EPA does not approve the scope of work for the additional soil sampling as it is proposed for the following areas: Former Tank farms, gas station, seep area, former lagoon area, and off-site areas. As previously mentioned throughout EPA's comments, there are concerns about the completeness of the historic data. Specifically, the type and degree of analysis performed on soil and aqueous samples as well and the intervals from which

samples were collected (soil and to a lesser extent aqueous). EPA requests that a figure be created which only depicts the location of all soil sample locations, including any (soil) analytical data which may have been collected during monitoring well installation or the SGW screening activities. A separate figure should be created which depicts the survey/screening results of notable product (i.e., those presented in Figure 3-4 of the 2001 RI Report to NJDEP and Figure 5-9 of the 2007 RIR). EPA and NJDEP will review these figures and provide an outline of the required sampling to complete RI soil sampling and analytical operations at the aforementioned areas, as well as possibly off-site areas to confirm the extent of potential contamination.

b. EPA requests that figures be provided which only depict the locations of monitoring wells and all other aqueous sample points previously collected, including: all well-point locations (WPs), staff gauges, shallow groundwater (SGW), and HP sample location points. If data is not available on TeamLink for these points and the data is available elsewhere, it should be provided. In addition, EPA requests that another round of complete groundwater monitoring sampling should be performed. If measurable product is detected in the wells at the time of sampling, the minimum quantity present (which would trigger non-sampling) should be provided to EPA. Finally, as previously stated it is highly recommended that all monitoring wells be re-developed prior to sample collection.

c. EPA approves the other items outlined on Page 4-1 of Section 4.0; however, specific comments on proposed work will be made below (as applicable) in the respective specific comment section.

17. Specific Comments on Sections: 4.1.1 through 4.1.5 – See EPA Comment #16a.

18. Specific Comment on Section 4.1.6, Former Pump House Excavation – EPA approves the sampling proposed for the area specified as "within the center of the former excavation"; however, EPA also recommends that the XRF be utilized to aid in the determination of sample collection, as analysis for metals is proposed. EPA does not approve the sampling as proposed for the area that is "at the exterior of the former excavation". EPA will make its determination after it has reviewed the information requested in EPA Comment #16a.

19. Specific Comment on Section 4.1.7, Areas Identified in Updated Preliminary Assessment – Page 3-1 states that there are "4" former electrical transformer areas; whereas, page 4-10 states that there are "3", please correct to reflect the correct number. EPA approves the sampling outlined for these additional areas.

20. General Comments on Section 4.2, Sediment and Surface Water - Silver Lake

a. Please note, references are made to recent data collected at the PWCC area (including sediment samples collected from the culvert, identified with the prefix "PWDD"), the

data is not available on TeamLink for review and should be.

b. Previous sampling at Bridgewood Lake collected samples at 50 – foot intervals along the transects. The rationale for longer distances between sample locations (such as SL-12) should be further explained.

c. The text states that sampling is based on sediment thickness (e.g., page 4-13, 3rd full paragraph and bullets). Field Change Request Form #11 for Bridgewood Lake modified that sampling event to use fine grained versus coarse grain materials in making sapling decisions. Additional rationale as to the reason to not use material type, and to use thickness only, should be provided.

21. Specific Comments on Section 4.2, Sediment and Surface Water – Silver Lake

a. Section 4.2.1 Sediment Investigation, page 4-12, Figure 4-2 Silver Lake Proposed Sample Locations; Sampling and Analysis Plan, Section 1.3.2 Sediment and Surface Water – Silver Lake and Table 3-1 Summary of Field Sampling and Analysis Program Part 1: Field Sampling Summary: In order to better determine the presence of site-related contaminants in Silver Lake, additional transects in the southern portion of the lake (those closest to the Site) should be sampled. Three sediment samples and one co-located surface water sample should be collected from transects SL-2 and SL-5. Further, for all transects, the surface water sample should be collected from the interface nearest the bottom of the water column, rather than at mid-point, and should be co-located with one of the sediment samples.

b. Section 4.2.1 Sediment Investigation, page 4-13 and Sampling and Analysis Plan, Section 1.3.2 Sediment and Surface Water – Silver Lake, page 1-12: Please note that while the banks might not be accessible to the public, there is still the potential for exposure to ecological receptors. Further, as noted above, for ecological purposes, sediment data should be screened against freshwater sediment screening values (as discussed in the Sampling and Analysis Plan, Section 1.4 Sample Analysis, Data Validation, and Data Evaluation, page 1-19) and surface water data should be screened against NJDEP freshwater surface water values. The depth of sediment samples should be included in this discussion (as noted in Table 3-1).

c. Section 4.2.1 Sediment Investigation, page 4-13, Sampling and Analysis Plan, Section 1.3.2 Sediment and Surface Water – Silver Lake, page 1-12 and Figure 4-2 Silver Lake Proposed Sample Locations: Please note that text and figures should clearly indicate that both sediment and surface water samples will be collected from the stormwater discharge points.

d. Figure 4-2 Silver Lake Proposed Sample Locations: Please note that the surface water samples should be depicted as green triangles or the key should be changed.

22. General Comment on Section 4.3, Investigation of Geophysical Targets – EPA concurs with the proposal to the investigation activities proposed for the geophysical targets. However, EPA or EPA oversight will assist in the determination of whether the tank or structure potentially represents a source of soil or groundwater contamination. In addition, if the structure is removed, post-excavation soil sampling (both side-walls and bottom) will be performed (rather than only performing a visual inspection of the surrounding soil for evidence of a discharge).

23. Specific Comments on Section 4.3, Investigation of Geophysical Targets

a. Page 4-15, 2nd full paragraph, the text references "Section 3.5", please note there is no such section in the Work Plan. This may be a typographical error, and reference should be to Section 4.5.

b. Page 4-17, 2nd full paragraph – It is unclear if the borings discussed in this paragraph are shown on Figures 4-1A and 4-1B, and are included in the numbers previously outlined in Section 4.1.

c. Page 4-17, 3rd full paragraph, the procedure(s) for inspecting the wells (e.g., video camera) should be further outlined.

24. Specific Comment on Section 4.4 Shallow Groundwater – EPA agrees that an additional round of groundwater samples should be collected; however, as previously stated EPA recommends that the monitoring wells be re-developed prior to any future rounds of sampling. EPA concurs with the proposed list of analytes to be collected, including: VOCs, SVOCs, and TAL metals. In addition, please indicate the minimum detected amount of measurable product that would prevent the collection of a groundwater sample.

EPA does not agree with the statement that the groundwater conditions in the shallow groundwater are well understood, and although EPA is not requesting that additional monitoring wells be installed at this time, EPA anticipates that shallow monitoring wells will need to be installed at the following locations: 1) along U.S. Avenue (north to south) where the extent of groundwater contamination has not be determined along the eastern boundary – across from the former Paint Works property; 2) south of the former lagoon area; and 3) west of MWs 15 and 20, where the western extent of contamination has not been delineated.

25. Specific Comment on Section 4.5 Deep Groundwater – It is stated that the source of benzene is unknown, yet review of Figure 2 dated 03/04/06 (*Historic Factory Insurance Association Plant Map 16 April 1964 With AECs*), reveals that MW-30 (the deep well with the highest benzene value, 3,100 ppb) is in the general vicinity to an area labeled "No. 24" – an area where varnishes were mixed with benzene and turpentine. Although

this map does not indicate other areas where benzene was used or stored, it seems apparent that benzene was a component used, stored, and/or transported during plant operations.

EPA does agree that the installation of additional deep monitoring wells is required; however, EPA is requesting that an additional round of groundwater sampling be performed first.

Specific Comments on the Draft Sampling and Analysis Plan

1. Section 1 Proposed Activities, page 1-1 – Second paragraph, please correct the reference to the supplemental "QAPP", to the Sampling and Analysis Plan.

2. Sections 1.3.1.1 through 1.3.1.5 – As previously mentioned in (2007) Draft Supplemental RI Work Plan Comment #16a, EPA does not approve the currently proposed soil sampling program. Once the requested figures and associated sample summary and analytical procedure tables are provided, EPA will propose the required sampling necessary to perform the RI soil sampling activities.

3. Section 1.3.1.6 Former Pump House Excavation, page 1-9 – EPA concurs with the proposed sampling operations; however, EPA recommends that the XRF be utilized for screening purposes as well as a PID.

4. Section 1.3.1.7 Areas Identified in Updated Preliminary Assessment, page 1-10 – EPA concurs with the proposed sampling operations for the areas identified in (the) updated preliminary assessment. In addition, please verify the number of former electrical transformer areas referenced. See (2007) Draft Supplemental RI Work Plan Comment #19.

5. Table 3-1 Summary of Field Sampling and Analysis Program Part 1: Field Sampling Summary: It is indicated that one sediment and surface water sample will be collected from each of the eight stormwater discharge points. This should be clearly indicated in Figure 4-2 Silver Lake Proposed Sample Locations. Further, there is some confusion because different terminology is used in the text, figures and table regarding the "outfall locations." It is unclear whether these are "stormwater inlet points," "inflow points," or "outfall locations." The same terminology should be used throughout the document: text, tables and figures.

6. Table 3-1 Summary of Field Sampling and Analysis Program Part 1: Field Sampling Summary: Please indicate that TOC and grain size analyses will be included for all sediment samples, and pH and hardness will be included for all surface water samples. Further, surface water samples should undergo both total and filtered analysis.

7. Sampling and Analysis Plan, Section 1.4 Sample Analysis, Data Validation, and Data Evaluation, page 1-18: Please include the specific analyses to be conducted, as per Table 3-1 Summary of Field Sampling and Analysis Program Part 1: Field Sampling Summary.

Comments on the Draft Quality Assurance Project Plan

Regarding the work for which EPA has provided concurrence on, the applicable QAPP elements are appropriate and correct.

Attachment II

Copy of EPA's February 14, 2008
Comments on the May 2007
SWC Revised Vapor Intrusion Work Plan

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
REGION 2
290 BROADWAY
NEW YORK, NY 10007-1866

Ms. Mary Lou Capichioni
Director
Remediation Services
Corporate Environmental Services
The Sherwin-Williams Company
101 Prospect Avenue, N.W.
Cleveland, OH 44115-1075

Re: Sherwin-Williams Gibbsboro Sites
Administrative Order Index No. II CERCLA-02-99-2035
"Revised Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan
Paint Works Site, Gibbsboro, New Jersey" (May 2007) and The Sherwin-Williams Company Response to USEPA March 28, 2007 Comments on the (Draft), September 21, 2006 "Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan for the Paint Works Property, Gibbsboro, New Jersey"

Dear Ms. Capichioni:

The U.S. Environmental Protection Agency (EPA) has completed its review of the May 2007 "Revised Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan for the Paint Works Site, Gibbsboro, New Jersey" and the May 24, 2007 "Response to USEPA March 28, 2007 Comments on the Draft September 21, 2006 Vapor Intrusion Work Plan", both submitted by the Sherwin-Williams Company (SWC) and offers the following comments. In addition, comments on the revised "Plan" by the New Jersey Department of Environmental Protection (NJDEP) are enclosed.

Please note, items and/or information which pertain to the current soil and groundwater conditions at the Paint Works Site will be specifically addressed in EPA's (forthcoming) comment letter, based on the review of the May 11, 2007 "Comprehensive Paint Works Remedial Investigation Report" and "Supplemental Paint Works Remedial Investigation Work Plan". This includes statements made by SWC regarding the theorized extents of soil and groundwater contamination, except where applicable to sub-slab sampling.

Response to Comments

1. General Comments - Comment #1, SWC Response

a. Please revise the following response to indicate that EPA is currently in the process of attempting to obtain access to 25 United States Avenue.

b. Regarding the response as to why sub-slab sampling is not being proposed at 10 Foster Avenue, EPA disagrees that there is no evidence to support that this property would be

affected and still requests that this location be included in the sampling program. Based on the historical data (including that from the May 11, 2007 "Comprehensive Paint Works Remedial Investigation Report"), EPA notes the following:

1) The soil boring logs for shallow groundwater samples (SGW) - 272, 274, 276, and 300 (samples which are all in close proximity to the 10 Foster Avenue) are not provided in the May 11, 2007 "Comprehensive Paint Works Remedial Investigation Report, Paint Works", later referred by SWC as the "RIR". If available, these soil boring logs would reveal insight as to the field instrument screening levels (i.e., PID and OVA readings), the presence or absence of product staining or odors, and also the depths at which samples (soil or aqueous) were collected and whether or not the samples were collected from the zones exhibiting the highest field instrument screening levels, or visual contamination. Incidentally, SGW samples 274 and 276 both exhibited levels of benzene that are greater than 1.0 ug/l (the screening criteria).

2) Soil boring logs for sample locations "B" – 74, 75, and 76 are not provided in the appropriate appendix of the May 11, 2007 RIR. The benefit of having this data available is discussed above. It appears that soil samples were collected from these locations; however, from the information available, the depths of sample collection are uncertain.

3) There are currently no groundwater monitoring wells adjacent to 10 Foster Avenue, however, there are several in the general vicinity, they include: MW-15, 16, 20, and 31. All but MW-16 exhibited signs of either elevated field instrument screening levels or petroleum ("like") odor. MW-15 exhibited the highest levels of benzene, with concentrations ranging from 22.0 to 350.0 ug/l. There is a need for additional groundwater Remedial Investigation activities in this vicinity to determine the presence or absence of groundwater contamination west of these monitoring wells; however, EPA will address this concern in comments on the May 11, 2007 "Supplemental RI Work Plan".

Overall - Based on EPA's review of the available information and data, and taking into consideration the proximity of 10 Foster Avenue to the former Tank Farm B area (albeit upgradient), EPA requires that this property be sampled as part of the sub-slab sampling program.

c. In addition, EPA also requests that former Building 57 be included in the sampling program as well. Based on the fact that it is stated in the RIR that raw materials and finished goods were typically stored there, as well as the fact that there were no confirmatory soil samples collected, nor any groundwater monitoring wells in vicinity, further justifies this request.

d. Table 4-2 is used to summarize the list of structures which have been proposed for sampling; however, many of the locations proposed are for "basement" samples and not sub-slab. Please clarify.

2. General Comments – Comment #3, SWC Response: Please update the text to reflect that the EPA Removal Branch's "Expedia Notice" and "Draft AOC" are now closed.

3. Comments on the Tables – Comment #1 (a), SWC Response: A list of the currently available well point (WP) locations should be provided, along with information on the WPs (i.e., total depth, diameter, etc.). Please explain why some WP locations were measured in 2003 and others were not. It should be noted only 3 WPs have been sampled (according to the information available on Team Link), these include: WP-3, WP-13, and WP- 17. If any other data exists, this information should be provided as well.

   In addition, it is stated that a small amount (0.04 foot) of free product was observed in MW-24 (located in the northern portion of the property) during the July 2003 monitoring event, but not during any other event. It should be pointed out that in 2003, it was determined that there was "enough" free-product present as to not collect a groundwater sample from this well. In addition, the soil screening data (free product investigation) conducted in 2003 resulted in nearly all of the sample points having free product present (discussed later in detail, Comment 2b, below). Figure 3-1 should be revised to include the inferred area of residual product to at least MW-24, in addition the following homes are to have sub-slab samples collected as well: 18 and 20 U.S. Avenue.

4. Comments on the Tables – Comment #1 (b), SWC Response: EPA has reviewed SWC's response, and although it is stated that the results are contrary to what would be predicted it seems apparently clear that the monitoring wells need to be re-developed. Since the wells were last sampled in 2003 (and it is unclear when the wells were last re-developed), all wells should be re-developed prior to the next sampling round.

5. Comments on the Tables – Comment #3: Please correct the column heading ("Soil Gas Screening Criteria") presented in Table 4-1, to: "Sub-slab Screening Criteria".

6. Indoor Air Data Comments – Comment #5: To clarify, at this time EPA does not require that ambient air samples be collected. Typically they are collected during indoor air sampling events and not sub-slab sampling events. If the sub-slab sampling results indicate that indoor air sampling is required, at that time EPA would request that ambient air samples be collected.

   In addition, it is stated in Table 5-2 of the QAPP, SWC anticipates that approximately 2 samples per commercial building may be required for collection. Please note, EPA may require additional sample collection based on the "lay-out" of the commercial buildings. As property access is granted to the SWC, EPA requests notification so that an EPA member or an EPA representative will perform an inspection of the buildings to determine the total number of samples required.

Revised Plan Comments

1. Section 2.2 Soil Screening and Sampling, page 2-4

a. EPA disagrees with the statement that the outer limits of the petroleum in soil were determined. A closer review of Figure 2-4 reveals that the limits of free product were not determined, especially for all points along United States Avenue and in the northern area of former Tank Farm A and along the entire western perimeter of former Building 67. In fact, a closer review of Table 2-3 (a figure that was not previously included with either the Draft 2006 VI Work Plan, the February 2001 Remedial Investigation Report for the PWCC, or the May 2007 Comprehensive Remedial Investigation Report) reveals that sample points presented on Figure 2-4 as being "clean" (or depicted as the color green), do in fact exhibit signs of contamination. Several examples of these include the following sample points: 35, 36, 59, 69, 81, 82, 114, and 117. Notes presented under the column for "Comments" in Table 2-3 for these sample points include the following observations noted: sheen, staining, product, product odor, insufficient or "misleading evidence". At many of the locations noted above, it was decided to present these "points" on Figure 2-4 as "clean", with no confirmatory samples collected, yet conflicting field observations were noted.

Another observation of the data presented in Table 2-3 is the fact that several samples (i.e., 149, 150, 152 – 154) had appreciable PID readings, yet did not exhibit a positive "hit" on the Kolor Kut, but were not analyzed by the PetroFlag – yet these samples were depicted as clean (again, no confirmatory samples were collected). Many other samples did not undergo field screening analysis, these samples may have had a positive hit (according to the Kolor Kut test) and were therefore depicted as "contaminated". Again, EPA's concern is that there was not scientific progression for screening and analysis.

It is stated within Section 2.2 that utilizing a flame ionizing detector/photoionization detector (FID/PID) unit was originally proposed to accomplish the screening investigation, but due to field implementation issues, the protocol was modified to consist of visual observation and field screening with a organic vapor monitor (OVM); however, Table 2-3 still specifies that a PID and/or FID were used, please clarify. In addition, even when there were notable "visual observations" (made in Table 2-3) samples were still depicted as "clean" or by the color "green". Finally, later on page 2-5 it is stated that for selection of confirmatory soil sample locations, a FID/PID was used, conflicting with the earlier statement that a FID/PID was not used due to field implementation issues.

It appears that during the implementation of the soil screening program there were several "screening" methods being utilized, some more precise than others; however, the criteria used to select specific samples for either the "Kolor Kut" test and the "Petro FLAG" analyzer is unclear. There were times when it appears there were no field instrument screening (PID and FID) levels detected on a sample, yet it underwent the "Kolor Kut" test and had a positive reading, yet no further testing was performed (i.e., use of the PetroFlag). At other times, a positive indication from the "Kolor Kut" test was followed by that sample being analyzed by the "PetroFlag" analyzer. It would be expected that the samples would undergo a step-wise approach, but from the information presented in Table 2-3, this is not always apparent.

In addition, it appears that from the information presented in Table 2-3, field screening (FID/PID/OVA) alone should not have been used to determine whether or not a sample was clean, however, this was done for a variety of samples, including the samples P1 – P5. According to the table there were no notable field readings (slightly above background) for these samples, yet there was no additional testing with either the Kolor Kut or PetroFlag, and in the end these samples were identified as clean.

b. EPA does not agree with the statement on page 2-6, which states that: "The results of the confirmatory sampling program demonstrated that the field screening adequately delineated the extent of residual product." In some instances, samples which were collected (i.e., FPBKG) were not even analyzed. In addition, it is stated on page 2-5 that confirmatory sample locations were biased towards locations where obvious signs of contamination were detected during screening; however, a review of Table 2-3 reveals that this was not always consistently performed using a methodical scientific progression. In other words, samples FP98 – FP101 were all samples selected for confirmatory analysis, yet, the samples did not go through: 1) PID/FID/ OVA field screening, 2) Kolor Kut test, or 3) PetroFlag analysis.

Overall: 18 and 20 U.S. Avenue must be incorporated into the sub-slab sampling program.

SAP/QAPP Comments

1. Section 1.0 Introduction, page 1-1 – It was indicated in this section that the document was prepared in accordance with the Uniform Federal Policy for Quality Assurance Project Plans (UFP - QAPPs). However, the submitted documentation did not fully comply with the UFP-QAPP. Some of the required elements were not fully addressed. In addition, information similar to the worksheets provided in the UFP-QAPP guidance document should be followed. Refer to the following EPA website for additional information: http://www.epa.gov/fedfac/documents/qualityassurance.htm.

2. Since the QAPP cross references back to various sections of either the Work Plan and the Sampling and Analysis Plan for previously presented information, QAPP Worksheet #2 should be used to identify the location of all the required QAPP elements.

3. Section 2.2 Sample Analysis, Data Validation and Data Evaluation, page 2-2 – This section references the 2003 Revised Work Plan, Sampling and Analysis Plan (SAP) and QAPP for information regarding sample analysis, data validation and data evaluation. However, the proposed work has cited that analytical EPA Method TO-15 will be used to analyze the volatile organic compound (VOC) samples. The previous documentation did not include the analysis of air samples, as a result, please provide the necessary information using the UFP-QAPP worksheets as referenced in Comment #1 (above).

4. Section 4.0 Quality Objectives and Criteria for Measurement Data, page 4-1 – Similar to the comment above (#3), relevant information should be submitted with the current QAPP. Since the proposed work is not the same as the one provided in the 2003

documentation. Appropriate UFP-QAPP worksheets such as Worksheets #12, #15 and #28 should be used to document the information required.

5. Section 6.0 Calibration Procedures and Frequency and Section 7.0 Preventative Maintenance Procedures and Schedules – Similar to comments #3 and #4, the information related to the proposed air sampling should be provided since the referenced 2003 document did not have any EPA Method TO-15 information.

6. Section 8.0 Analytical Procedures, page 8-1 – The referenced Table 4-8 is in error and should be change to Table 4-1. In addition, this table should include the project action limits that will be used to evaluate the results. UFP-QAPP Worksheet #15 is recommended as a template that can be used to capture all the necessary information.

7. The remaining sections of the QAPP referenced the 2003 QAPP for the required information. However, since this work is substantially different from the work described in the 2003 documentation, all the required information should be presented. In addition, the proposed work was based on the previous sampling results, the evaluation process of the data quality and its limitations for use to design the current work should be presented. UFP-QAPP Worksheet #13 is used for this purpose.

EPA is requesting that the SWC submit a revised VISP within 21 days of receipt of EPA's comments. If you have any questions regarding this letter, please contact Ray Klimcsak, of my staff, at (212) 637- 3916.

Sincerely yours,

Carole Petersen, Chief
New Jersey Remediation Branch

Enclosure

cc: John Doyon, NJDEP

Attachment III

Summary of Soil Boring Logs

Examples of Instances of Where Contaminated Intervals Were not Sampled

a. TB-01 showed vapor readings of 1000 parts per million (ppm), but sample was taken where the vapor readings were zero. Biased sampling.

b. TB-02 samples were not taken at horizons with highest vapor concentrations.

c. TB-7 samples were not taken at horizons with highest vapor concentrations.

d. TB-09 samples were not taken at horizons with highest vapor concentrations.

e. TB-19 through TB-27 showed visible contamination (paint chips and pigment) and various vapor concentrations, but sample results are not included in the data tables, nor are the locations shown on the map. Please add these data to the report.

f. TB-28—Samples were not taken at horizons with highest vapor concentrations.

g. TB-29—Samples were not taken at horizons with highest vapor concentrations.

h. TB-31—Samples were not taken at horizons with highest vapor concentrations.

i. TB-34—Cannot find sample results or boring location. High vapor concentrations in drilling samples.

j. TB-40—Samples were not taken at horizons with highest vapor concentrations.

k. TB-41—Samples were not taken at horizons with highest vapor concentrations.

l. TB-42—Samples were not taken at horizons with highest vapor concentrations.

m. TB-45—Reported sample depths do not match between data tables and boring log.

n. TB-47—Samples were not taken at horizons with highest vapor concentrations.

o. TB-48—Samples were not taken at horizons with highest vapor concentrations.

p. TB-49—Samples were not taken at horizons with highest vapor concentrations.

q. TB-59—Samples were not taken at horizons with highest vapor concentrations.

r. TB-60—Samples were not taken at horizons with highest vapor concentrations.

s. TB-62A—Boring exhibited staining and odors, yet there are no samples reported or locations shown on the map.

t. TB-63A—No samples reported or locations shown on the map.

u. TB-65A—Boring exhibited high vapor concentrations, yet no samples reported or locations shown on the map.

v. TB-66—Boring exhibited visible petroleum contamination and paint chips yet it was only tested for lead.

w. TB-67—Boring exhibited visible petroleum contamination and paint chips; however, it was tested for VOCs in the horizon that had no petroleum, and lead in the horizons that had no paint chips. This is extremely biased sampling.

x. TB-69—Boring exhibited both paint and petroleum, yet it was sampled only for lead.

y. TB-70—Sampling results can not be found.

z. TB-71 through -73—Results of sampling and locations can not be found.

aa. TB-74—Sample depth is reported as "4.5 to 4.5". Also maps and tables show only a "B-74". Is this actually "TB-74"? The sample dates would suggest this.

bb. TB-75—Map and tables show a "B-75". Is this "TB-75"? Sample dates would suggest this, however, the sample depth listed in the tables is 11.5-17 which is deeper than the total depth of the boring (8 ft). Also, this boring exhibited visible petroleum, but it was only sampled for metals.

cc. TB-76—Again, maps and table show only a "B-76".

dd. TB-77—Maps and tables show only a "B-77". This boring exhibited visible petroleum, but was only tested for metals.

ee. SS-P2—This boring exhibited visible petroleum, yet sampling was biased toward a horizon with no discernable contamination.

ff. SS-P3—Samples were not taken at horizons with highest vapor concentrations and odors.

gg. SS-P5—Results of sampling and location can not be found.

hh. SS-P6—Results of sampling and location can not be found.

ii. SS-P7—This boring exhibited product odors, but results of sampling and location can not be found.

jj. SS-P8—Results of sampling and location can not be found.

kk. SS-HP—This boring exhibited high PID readings and strong odors, but the sampling results can not be found.

ll. V-1, V-2, V-2R, and V-3—These borings exhibit high PID readings, visible petroleum stains and odors, yet the results are not shown on any of the maps or tables.

mm. TB-67P—This boring exhibits extremely high PID readings, yet results of sampling and location can not be found.

nn. TB-73P—This boring exhibits paint residues, yet results of sampling and location can not be found.

oo. TB-91—This boring exhibits high PID readings and odors, yet results of sampling and location can not be found.

pp. TB-95—This boring exhibited paint chips but was tested only for metals and pentachlorophenol. Data are not found in the appendices, however they are listed on TeamLink.

qq. TB-95B—The location of this boring can not be found on the maps, nor are results shown in the appendices.

rr. TB-96—This boring exhibited paint chips but was tested only for metals and pentachlorophenol. Data are not found in the appendices, however they are listed on TeamLink.

ss. TB-96B—This boring exhibited paint chips but was tested only for metals and pentachlorophenol. Data are not found in the appendices, however they are listed on TeamLink. The location of this boring can not be found on the maps.

tt. TB-97--Data are not found in the appendices, however they are listed on TeamLink.

uu. TB-100—Samples were not taken at horizons with highest vapor concentrations and odors. Tested for toc and grain size only.

vv. PS-1—Boring exhibited high PID readings, petroleum stains and odors, but sample depth is not listed.

ww. PS-2 through PS-6—These borings exhibit high PID readings, visible petroleum stains and odors, yet the results are not shown on any of the maps or tables.

xx. SS-FP-104—Samples at this boring were taken at horizons that missed the petroleum staining and high PID readings.

yy. SS-FP-108—This boring exhibited high PID reading and visible petroleum staining yet no samples were taken.

zz. SS-FP-109—This boring exhibited high PID reading and visible petroleum staining yet no samples were taken.

aaa. SS-FP-110—This boring exhibited high PID reading and petroleum odors yet no samples were taken.

SS-FP-160, -161, -168, -170, -171—These borings report samples were taken from a 4-foot interval. Can you explain how these samples were taken (i.e. discrete vs. homogenized) and the rationale used?

Attachment IV

Comments on the 2007 Remedial Investigation Report

1. Page 5-9; 1st paragraph - The text refers to one surface water sample (004-SW01) that was collected from the northeastern most-point of Silver Lake. This sample location is not identified on any map. The only SSW-4 location is in Hilliards Creek. Please identify the background location on a map.

2. Page 5-10; 2nd paragraph - The text states metals were analyzed for in MW-2, MW-3, MW-4 and MW-6. The data in Appendix Q has been reviewed and metal results for these wells during this sampling event are not included. If these wells have been analyzed for metals during this sampling event, please include the results.

3. Page 5-11; 5th paragraph - The text states: "Three well points (WP-1, WP-2 and WP-3) were installed to delineate free phase product previously detected in MW-13 during the Phase I and II RI." Please identify the Well Point locations on a figure. Please provide the results of this investigation.

4. Page 5-12; 2nd paragraph - The text refers to product thickness measurement's that were collected from staff gauges and monitoring wells. Please identify in the text the IDs of the staff gauge's and monitoring wells that were monitored during this sampling event. Please provide the results of this investigation.

5. Page 5-13; 1st paragraph - The text states soil samples were collected below the laterals within septic systems. The results from this sampling event are not included. Please provide the results of this investigation.

6. Page 5-15; 5th paragraph - The text refers to 2 monitoring wells and 14 well points that were used to delineate the eastern extent of the dissolved phase ground water plume. Please identify in the text and on a figure the monitoring wells and the well points being referred to in the text.

7. Page 5-20; 4th paragraph - The text states: "Samples were also collected from selected previously installed wells (MW-12, MW-2, MW-15, MW-24, MW-25, MW-28, MW-14, MW-17 and MW-21) during the November 1996 sampling event." The results for these wells have been reviewed (Appendix Q) and results for MW-24, MW-25, and MW-28 are not included. Please provide the results for these wells that were sampled during this sampling event.

8. Page 5-39; 2nd paragraph - Although methylene chloride, acetone and bis(2-ethylhexyl)phthalate were detected in blanks during historical investigations, these constituents are components of paint products and are known to be waste products of

paint manufacturing. Considering the historical activities that have occurred on this site, these constituents are considered site related and should be delineated across the site.

9. Table 6-2 - There are some anomalously similar numbers for Depth to Product on this table with a note that says "check these". Please check your numbers and finalize the table.

10. Page 6-4, 1st Full Paragraph and Figure 6-3A – MW-33, to the southeast of Former Building 67, is listed, and appears on the shallow groundwater contour figure, as being screened in the Kirkwwod-Cohansey aquifer. However, further in the text (see Comment 8 below), the sample results from MW-33 are discussed as being from a deep monitoring well (Vincentown aquifer). The placement and monitor interval of this well as to aquifer needs to be consistent throughout the RI Report.

11. Page 6-11, First Numbered Area – The text references former location TB-36. This location does not appear in this area on the figures. Based on the provided information, the location may be TB-38

12. Page 6-17, 4th Full Paragraph; Page 6-21, 2nd Full Paragraph; Figures 6-6 and 6-8 –MW-33, to the southeast of Former Building 67, appears on the shallow groundwater figures but is discussed as a deep monitoring well in the text. Depending on its actual zone, the discussion of the extent of benzene contamination may need to be revised.

13. Page 6-18, 1st Full Paragraph – Exceedances for cis-1,2-dichloroethene (70 ug/L in MW-12) and 1,2-dichloroethane (3 J ug/L in MW-21) are not discussed in the text.

14. Page 6-19, 1st Full Paragraph and Appendix Q Tables – The groundwater criterion for pentachlorophenol is still shown as 1 ug/L.

15. Page 6-19, 4th Full Paragraph and Appendix Q Tables – There are no groundwater criteria values shown on the tables for these polycyclic aromatic hydrocarbons (PAHs) which apparently exceed.

16. Page 6-21, 4th Full Paragraph – Wells MW-35 and MW-36 contained exceedance concentrations of benzene (as noted on Figure 6-7). In addition, the "northernmost deep monitoring well" appears to be MW-34. Although this well did not contain an exceedance of benzene and therefore would not be part of the plume, the text appears to state that MW-30 is the "northernmost deep monitoring well" when discussing the plume extents.

17. Page 6-30—The text talks about a statistical analysis and refers the reader to Appendix U. This appendix, however, states that the statistical analysis yielded no conclusions. Please state this in the body of your report.

18. Page 6-38, 1st Bullet under Section 6.5.5 – One of the areas is denoted as "the area north of 1 Foster Avenue building (MW-1, MW-12)." First, this appears to be a typographical error, and should be the 2 Foster Avenue building. Second, MW-11 (not MW-12) was not sampled during the 2003 groundwater round as a result of sheen/measurable product in the well.

19. Page 6-38, 4th Bullet under Section 6.5.5 – Further explanation as to the statement made in this bullet is warranted. Is the statement in regard to historic sampling, or the most current 2003 groundwater round? Historically (1995), very elevated levels of numerous LNAPL target constituents (i.e., exceedances up to 1,600,000 ug/L) were found in MW-26 at the former service station. However, during the most recent (2003) groundwater round, MW-26 contained only benzene above criteria (92 ug/L). Benzene exceedances from the other two LNAPL areas in 2003 ranged up to 520 ug/L (MW-33 in the Seep Area) and 3,100 ug/L (MW-30 in the 2 Foster Avenue area).

20. Page 6-41, Section 6.5.5.3 and Figure 6-17 – The text states that "no inference of product was seen on the western side of the site (i.e., west of former Building 55)." However, the soil screening performed as part of Phase VI had positive occurrences (red locations) in the parking lot to the west-northwest of the building, as shown in the figure.

21. Page 6-45, Last Row of Table – Well MW-1 is shown as an example of where free product may remain in the Seep Area. MW-1 is located to the north of 2 Foster Avenue (former Building 55), in the former Tank Farm A area.

22. Page 6-47, #1 of Section 6.7.3 and Page 6-48, 1st Full Paragraph – The text for the deep groundwater states that "benzene is not a significant component of the product found at the site." This statement is not, though, noted for the benzene plume in the shallow groundwater. Additional explanation as to this reasoning should be provided.

23. Figures 6-4 and 6-20 – There are exceedance boxes on Figure 6-4 that do not appear on Figure 6-20 (such as for locations MW-13, PS-01 and SS-P2).

24. Figure 6-6 – Exceedance boxes for wells MW-12 and MW-19 are not provided.

25. Figure 6-15 – The "T" designations on the map are quite small and hard to read.

26. Appendix Q Tables – The total xylenes detections in wells MW-26, MW-27, and WP-13 and the cis-1,2-dichloroethene detections in MW-14, MW-15, MW-30, and MW-33 during 2003 are highlighted. With criteria values of 1,000 ug/L and 70 ug/L, respectively, these concentrations are not exceedances.

27. Appendix Q Tables – The thallium criterion listed on the groundwater tables is incorrect, and therefore, the exceedances are not shaded appropriately.

Attachment V

NJDEP Comments

State of New Jersey

Jon S. Corzine
Governor

Department of Environmental Protection

Lisa P. Jackson
Commissioner

Bureau of Case Management
401 East State Street
P.O. Box 028
Trenton, NJ 08625-0028
Phone #: 609-633-1455
Fax #: 609-633-1439

Raymond Klimcsak, Remedial Project Mgr.
USEPA Region II
290 Broadway - 19th Flr
New York, NY 10007-1866

Re: Sherwin Williams Company - Paint Works
Comprehensive Remedial Investigation Report (5/07)
Supplemental Remedial Investigation Work Plan for the Paint Works (5/07)
Borough of Gibbsboro, Camden County
SRP PI# G000004382
EA ID#: SUB070005

Dear Mr. Klimcsak:

The New Jersey Department of Environmental Protection (Department) has completed review of the Comprehensive Remedial Investigation Report and the Supplemental Remedial Investigation Work Plan for the Paint Works dated May 2007, submitted pursuant to CERCLA and the Technical Requirements for Site Remediation at N.J.A.C. 7:26E.

COMPREHENSIVE REMEDIAL INVESTIGATION REPORT

Unless otherwise specifically indicated in the comment, the comments below regarding the Comprehensive RI Report indicate deficiencies pursuant to NJAC 7:26E-4.1(a): Failure to delineate the horizontal and vertical extent of contaminants in all media.

Section 6.4.3.1 Shallow Ground Water Results

1. The first sentence on page 6-18 states that "The only other target VOC found above a GWQS (1 ug/l) was vinyl chloride,...". Please note that 1,2-Dichloroethane was also noted above the GWQS (2 ug/l) at 3 ug/l in monitoring well MW-21. This section is to be corrected and re-submitted so that accurate representations of the data results are presented.

Section 6.4.3.2 Deep Ground Water and Confining Layer

2. The section that discusses the historic results for volatile organic compounds neglects to discuss certain target compounds detected such as dichloromethane (noted in MW-

30 and MW-31) and tetrachloroethene (noted in MW-31). This section is to be revised and re-submitted so that accurate representations of the analytical results are presented.

Section 6.5 Free and Residual LNAPL

3. This section states that the free product noted throughout the site is composed of four separate areas consisting of the Former Tank Farm A, the Former Building 67 Seep Area, the Building 50 Area, and the former gasoline service station. Sherwin-Williams continues to claim that these four areas of free and or residual product are not related based on the fact that there are wells and borings between these areas that do not have free and/or residual product present. The Department continues to disagree with this conclusion. Given the probability that the separate discharges would have occurred over the lifetime of operations at the site (approximately 125 years) and that the LNAPL would have spread and migrated over this time-period leaving pockets behind as it traveled, it is reasonable to conclude that the four isolated areas of LNAPL all originated from the same source location. Sherwin-Williams shall justify its position or remove/modify the statement.

4. In the section referred to as Building 50 Seep, it is stated that "...based on data collected during the 1996 Phase III Conceptual Design RI and the Police Station Remedial Action, it was concluded that this seep was separate from the Building 67 Seep Area. Please note that at the time of the submission the NJDEP disagreed with this conclusion based on insufficient data to make such a determination. It should also be noted that the 1996 document concluded that the contamination was unrelated to Sherwin-Williams operations and that is also a conclusion with which the NJDEP disagrees. This statement must either be justified or removed from the document.

5. It is stated on page 6-39 of the RIR and page 2-5 of the Supplemental Work plan that "Measurements for free phase product were collected using an oil water interface probe in three events (July 2003, March 2004, and August 2004) during the supplemental investigation. The report must clearly state where in the report this product measurement data can be found. The next sentence states that measurable product was consistently observed in only the former Building 67-seep area, the service station (WP-9) and in the former tank farm area. WP-9 is not depicted on the seep area detail map figure 1-4 of the Supplemental RI work plan and figure 5-6 of the Comprehensive RI. This should be corrected. WP –9 is depicted on Figures 6-12 and 6-13 of the Comprehensive RI. These figures show free phase product thickness at well locations in July and August 1995. Neither of these figures indicates any product in WP-9. It is not clear that the Report provides adequate data to support the statement that measurable product was consistently observed at the former service station in WP-9. Clarification is required.

6. It is stated in the last paragraph of this same section that several rounds of analysis have shown that the LNAPL material has "overall characteristics similar to degraded mineral spirits and or gasoline". All of the reports that the NJDEP was able to review

during review of this document mention that the product material resembles mineral spirits. The text must reference which, if any, product analysis states that the product may resemble gasoline. If this cannot be provided, then the reference to gasoline must be eliminated from this section of both reports.

7. It is stated on page 6-38 that "With the potential exception of the LNAPL in the immediate vicinity of the former service station, the LNAPL is not a source of high concentrations of dissolved phase target compounds. The report must discuss any data that provides justification for this statement.

Section 6.6 Indoor Air Quality Investigation

8. According to Table 6-8, the TO-14 samples from the Police Station and 1 Foster Avenue were above the Department's indoor air Screening Levels for benzene and Methylene Chloride in 7 of the 8 samples analyzed and for TCE in three out of the eight samples analyzed. There also were exceedances noted for xylene in the garage behind the police station. The report incorrectly compares the concentrations to the OSHA PELs. The contaminant concentrations noted from the indoor air samples are to be compared to the concentration levels provided in the Department's Vapor Intrusion Guidance Document (May 2005). N.J.A.C. 7:26E-1.13 sets forth narrative ground water remediation standards for contaminated sites which "Ensure no release of contaminants to the ground surface, structures or air in concentrations that pose a threat to human health." Additional comments regarding this issue will be provided once review of the Revised Vapor Intrusion Pathway Evaluation and Indoor Air Sampling Plan has been completed.

Section 6.7.3 Site-Wide Ground Water

9. This section states that "The highest concentrations of benzene found in ground water are in the deep wells screened in the Composite Confining Bed and Vincentown Aquifer. The source(s) of the benzene is(are) unknown, and its presence is not consistent with the characteristics of the free product or the distribution of benzene in shallow ground water. Benzene is not a significant component of the product found at the site. Concentrations of benzene in shallow ground water are 10 to 100 times lower than those found in deep ground water."

   The NJDEP does not agree with the above statements that the source(s) of the benzene in the deep aquifer groundwater is unknown for the following reasons:

   a. Figure 2-6 of this report shows the Plant map from 1939 (revised 1947). This figure indicates two 2300 gallon "benzol" underground storage tanks located on the north end of Tank Farm A (Benzol is a synonym for benzene).
   b. In addition, A 19,000 gallon above ground Kerosene Tank was located on the south end of Tank Farm A. (kerosene is approximately 14% benzene).
   c. There were also storage tanks of mineral spirits, linseed oil, and naptha along with other solvents stored at this tank farm.

d. Three deep wells (MW-31, MW-32 and MW-34) sidegradient and upgradient of MW-30 (3100 ppb benzene) all show no benzene concentrations indicating that the source would have been located in the area of Tank Farm A.

Because of the above information, the NJDEP disagrees with the conclusion that the source(s) of benzene are unknown and believes this statement should be removed from the report. Considering the duration of operations at this site (approximately 125 years) it can be reasonably assumed that the potential discharges from site operations would have occurred in different amounts and at different times over the course of site operations. Therefore, the NJDEP believes that the characteristics of the contamination noted in the deep aquifer being different than the characteristics of the contamination in the shallow aquifer can be rationally concluded as different discharges at different times from different sources within the same site or even the same Tank Farm. Therefore, it can be reasonably concluded that the benzene contamination came from Tanks used store benzene at one time which were located in Tank Farm A.

The following comments relate to text, format or demarcation errors noted in the document:

Section 6.4.2.1 AEC I/III (Former Tank Farm A/ Seep Area)

1. On page 6-11 in the paragraph which discusses the "Northern portion of the Paint Works" it is stated that "The primary data gap with regard to this area is whether and to what extent, naphthalene and xylenes may be present at levels above the IGWSCC south of former location TB-36." However former location TB-36 is not indicated on the figures provided. In accordance with N.J.A.C. 7:26E-4.8(d) the location of samples and borings is to be plotted on the pertinent figures.

Section 6.4.3.1 Shallow Ground Water Results

2. The last sentence on page 6-16 (which continues onto page 6-17) references contamination concentrations in monitoring well MW-27. However, the concentrations referenced are actually for monitoring well MW-26. In accordance with N.J.A.C. 7:26E-4.8 accurate results of the data are to be presented and this section is to be corrected and re-submitted.

Section 6.4.3.2 – Deep Ground Water and Confining Layer

3. On page 6-21 the last paragraph references monitoring well MW-33 as a deep well, implying it is screened in the Vincentown Aquifer. However, it is represented on the figures showing wells screened in the shallower Kirkwood-Cohansey Aquifer and not on the Figures showing wells screened in the Deeper Vincentown Aquifer. The boring log for this well indicates that it is was drilled down to 79 feet below ground surface (bgs) and screened at 50 feet bgs. This would place it in the Vincentown Aquifer. In accordance with N.J.A.C. 7:26E-4.8(d) figures are to be provided that accurately indicates the well locations and depths. The figures are to be revised to place on the appropriate figure.

Figures

4. Figure 6-6: The results for Monitoring wells MW-12 and MW-19 are not provided on this figure. In accordance with N.J.A.C. 7:26E-4.8(d) all analytical results for the groundwater samples from the monitoring wells in the kirkwood-cohansey aquifer are to be depicted. This figure is to be revised to include the appropriate results.

5. Figure 6-8: Monitoring well cluster MW-21/MW-33 is incorrectly labeled MW-13R. In accordance with N.J.A.C. 7:26E-4.8(d) all sampling locations are to be accurately depicted. This figure is to be revised to accurately depict the monitoring well locations.

6. Figures 6-7 through 6-11 – Ground Water Results: The legend for these figures provides two different colors of cross-hair emblems to depict monitoring wells. The red emblem depicts wells that have exceedances while the green emblem depicts all other wells. However, the implication is that the other wells have no exceedances. In actuality, this is not always the case since a well with free product in it will not have been sampled and will have been left green. In accordance with N.J.A.C. 7:26E-4.8(d) the contaminant disposition of the wells is not accurately represented. Therefore, a third colored cross-hair emblem is to be used to depict wells that have or have had free product noted in them.

Appendix C – Monitoring Well & Boring Logs

7. The well log for monitoring well MW-1 is not included in this section. The well log for MW-1 must be provided.

SUPPLEMENTAL REMEDIAL INVESTIGATION WORK PLAN

Unless otherwise specifically indicated in the comment, the comments below regarding the Supplemental RI Workplan indicate deficiencies pursuant to NJAC 7:26E-4.1(a): Failure to delineate the horizontal and vertical extent of contaminants in all media.

Section 2.2 - Free and Residual LNAPL

1. It is stated on page 2-5 of the Supplemental Work plan that "Measurements for free phase product were collected using an oil water interface probe in three events (July 2003, March 2004, and August 2004) during the supplemental investigation. See comment regarding section 6.5.5 of the RIR above.

2. It is stated in the last paragraph of this same section that several rounds of analysis have shown that the LNAPL material has "overall characteristics similar to degraded mineral spirits and or gasoline". All of the reports that in the possession of the NJDEP mention that the product material resembles mineral spirits. The text must reference which, if any, product analysis states that the product may resemble gasoline. If this cannot be provided, then the reference to gasoline must be eliminated from this section of both reports.

Section 4.1.1 – Soil Investigation/Former Tank Farm A Area

3. In addition to the proposed sampling, borings are to be advanced beneath and / or immediately adjacent to, #2 Foster Avenue (Former Building 55) to determine if contamination extends under the building. The purpose of this sampling is to determine if there is a continuing source of contamination in the subsurface soil beneath the building. Additional borings are also to be located on the northeast corner of #2 Foster Ave Building and across US Avenue toward the former gasoline station. The purpose is to determine the lateral extent of contamination originating from the former tank farm area.

Section 4.1.2 Former Gasoline Station

4. In addition to the proposed sampling, additional borings are to be advanced up gradient of the former gas station along US Ave and on the northeast corner of the intersection of US Ave and Berlin Haddonfield Road. This is to determine if any contamination at the former gasoline station may be related to an up gradient source. Also additional borings are to be installed to delineate the down gradient extent of contamination southwest of FP105 in the direction of the houses.

Section 4.1.7 – Areas Identified in Updated Preliminary Assessment

5. A heat transfer fluid was used in Kettles used for paint manufacturing on the portion of the property northwest of Tank Farm A. Sherwin-Williams has not provided adequate proof that the heat transfer fluid used in these kettles was free of PCBs. In addition, the investigation for PCBs in soil in this area was inadequate. In accordance with N.J.A.C. 7:26E-3.9(f) additional sampling/analysis for PCB contamination in this area is required.

Section 4.2 Sediment and Surface Water – Silver Lake

6. To better characterize surface water and sediment in Silver Lake, transects SL-2 and SL-5 in the southern portion of the lake are to be sampled. Three sediment samples and one collocated surface water sample are to be collected from these transects. Surface water samples are to be collected from the interval as near to the bottom sediment as possible, rather than at mid-point, and are to be collocated with one of the sediment samples.

Section 4.2.1 - Sediment Investigation (p. 4-13) & Appendix A Sampling and Analysis Plan, Section 1.3.2 Sediment and Surface Water – Silver Lake (p. 1-12)

7. The text in these sections states that no bank sampling is currently proposed because the banks are not accessible to the public. The text must be modified to indicate the potential for contaminant exposure to ecological receptors.

Appendix A/Section 1.4 – Sampling & Analysis Plan/Sample Analysis Date Validation, and Date Evaluation (p. 1-19)

8. The text must state that surface water data will be screened against aquatic chronic freshwater NJDEP Surface Water Quality Standards. It would be appropriate to describe screening criteria for all media and specific sample depths in main body of the work plan (i.e., Section 4.2 *Sediment and Surface Water – Silver Lake).*

Figure 4-2 – Silver Lake Proposed Sample Locations

9. This figure must indicate that both sediment and surface water samples will be collected from the stormwater discharge points. Further, the color code for the surface water samples must be made consistent between the key and figure.

Table 3-1 – Summary of Field Sampling and Analysis Program Part 1: Field Sampling Summary

10. TOC and particle grain size must be analyzed for all sediment samples; pH and hardness (as $CaCO_3$) must be included for all surface water samples. Surface water samples are to be analyzed for both total and dissolved metals.

Section 4.3 Investigation of Geophysical Targets

11. Please note that the NJDEP had required investigation of a potential gasoline or diesel tank in the area of T-11. This requirement was based on a photograph from the mid 1900s that showed a fuel pump at this location. The photo of the fuel pump is noted on page E-22, Appendix E of the Site Investigation Report for the Sherwin-Williams Dump Site generated by the NJDEP's Site Investigation Unit.

Section 4.3.1 Investigation of Geophysical Targets/Excavate and Inspect:

12. This section states that "If it is determined to be a tank or other structure that could potentially represent a source of soil or ground water contamination, the structure will be removed and the surrounding soil will be inspected for evidence of a discharge." The investigation and excavation of underground storage tanks and like structures is to be conducted in accordance with the Technical Requirements for Site Remediation N.J.A.C. 7:26E-3.9(a)3, 6.3(b) and 6.4. In addition, registration of underground storage tanks is required prior to removal.

Former Weed Killer Tank:

13. This section refers to inspecting the building where the tank was located in order to ascertain the feasibility of collecting a sample. This tank was located adjacent to an exterior wall of the building and the wall may have not even been present during the time the tank was located in this building. In accordance with N.J.A.C. 7:26E-3.5 a sample is to be obtained from just outside the building regardless of whether a sample can be obtained from the interior of the building.

Abandoned CessPool:

14. There is a discrepancy with the full scan analysis proposed in the text of the document and the limited analysis indicated for the sample location in figures 4.1A and 4.1B. In accordance with N.J.A.C. 7:26E-4.2(b)7, Figures 4.1A and 4.1B are to be revised to indicate a full scan analysis on the boring location adjacent to the northeast of Tank Farm A.

Schedule

15. The schedule does not provide for tasks such as data analysis, data evaluation, report generation, report submission, or contingency for sampling and analysis of the geophysical target investigations. In accordance with N.J.A.C. 7:26E-4.2(b)1, a revised schedule is to be provided which incorporates the additional tasks noted above.

Section 4.5 Deep Ground Water

16. This section states that "The source(s) of the benzene is currently unknown." The NJDEP refers the reader to the above comment regarding section 6.7.3 of the Comprehensive Remedial Investigation Report.

17. On page 4-19 the last paragraph states that "Sherwin-Williams will install 4 deep (approximately 70'-90') borings into the Composite Confining Layer and collect soil samples to assess whether the Composite Confining Bed is the source of the benzene in deep ground water." The NJDEP requires that an additional deep boring be conducted in the location of the former underground storage tanks that contained benzol as indicated on the Figure 2-6 of the Comprehensive RIR.

Please incorporate these comments into the letter that the USEPA will be sending to Sherwin-Williams Corporation.

If you have any questions regarding this matter contact John Doyon Case Manager, at (609) 633-0713 prior to the date indicated.

Sincerely,

John Doyon, Case Manager
Bureau of Case Management

cc: Joseph Marchesani, Geologist BGWPA
Jim Kealy, Tech. Coord. BEERA
Nancy Hamill, Tech. Coord. ETRA
Honorable Edward Campbell, Mayor of Gibbsboro
Robert Lentine, CCHD